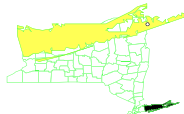


MACKENZIE CHEMICAL WORKS NEW YORK

EPA ID# NYD980753420



EPA REGION 2
CONGRESSIONAL DIST. 02
Suffolk County
Central Islip

Site Description

The MacKenzie Chemical Works, Inc. (MacKenzie) site, located within a residential/light commercial area of Central Islip, is bounded to the north by the Long Island Rail Road, to the east by private property, to the south by Railroad Avenue, and to the west by Cordello Avenue. The property encompasses approximately 1.4 acres, and houses three 1-story block buildings and one 2-story block building, which includes a former manufacturing building, storage warehouse, and a warehouse/laboratory. The property is abandoned.

MacKenzie used the property from 1948 to 1987 for the manufacture of various chemical products, including fuel additives and metal acetylacetonates. The Suffolk County Department of Health Services (SCDHS) and the Suffolk County Fire Department have documented poor housekeeping and operational procedures. According to SCDHS, MacKenzie stored 1,2,3-trichloropropane (1,2,3-TCP) in three 10,000-gallon tanks on the property. Other historical waste sources include other storage tanks, leaking drums, waste lagoons, cesspools, and storm-water drywells. Spills, explosions, and fires have occurred at the facility, including a methyl ethyl ketone (MEK) spill in 1977, a nitrous oxide release in 1978, and an MEK spill/fire in 1979.

Drinking water wells within four miles of the site serve approximately 141,000 people (three municipal supply wells and one private supply). The nearest drinking water well is a municipal supply well located approximately 3,500 feet southeast of the property.

Site Responsibility: This site is being addressed through federal actions.

NPL LISTING HISTORY

Proposed Date: 06/14/01

Final Date: 09/13/01

Threats and Contaminants



The results of sampling indicate the presence of volatile organic compounds, including 1,2,3-TCP, tetrachloroethylene (PCE), and trichloroethylene (TCE), in site soil and ground water. Metals and semi-volatile organic compounds, including polycyclic aromatic compounds, have also been detected in soil on-site. Direct contact with or ingestion of contaminated ground water or soils may pose a health threat.

Cleanup Approach

The site is being addressed in one stage—a long-term remedial phase focusing on the cleanup of the entire site.

Response Action Status



Entire Site: In 1993, the New York State Department of Environmental Conservation (NYSDEC) completed a preliminary investigation of the site. The results indicated the presence of elevated levels of 1,2,3-TCP, PCE, and TCE in on-site soils and in on- and off-site ground water. In 2000, NYSDEC completed a remedial investigation/feasibility study (RI/FS) to determine the nature and extent of contamination at and emanating from the site and to identify and evaluate remedial alternatives. Subsequently, NYSDEC requested that EPA assume the lead for the site. In April 2000, EPA collected ground water samples from off-site monitoring wells, two municipal supply wells, and one private well in order to assess the need for a removal action. The conclusion of that assessment was that conditions did not warrant immediate action but that further evaluation was necessary in order to address potential long-term threats. In July 2002, EPA undertook sampling in order to assess current conditions related to on-property surface soil.

Following the evaluation of various soil and ground water alternatives and considering public comments on these alternatives, in March 2003, EPA selected a remedy for the site. The selected soil remedy includes thermally-enhanced in-situ soil vapor extraction for the soils contaminated with volatile organic compounds and some limited excavation and off-site disposal for soils contaminated with semi-volatile organic compounds. The selected ground water remedy involves treatment using in-situ air sparging with ozone injection.

Design-related treatability studies related to the selected remedy are currently underway. It is anticipated that construction of the remedy will commence in Spring 2004.

Site Facts: A search for Potentially Responsible Parties is presently underway.

Cleanup Progress



(Design-Related Treatability Studies Underway)

It is anticipated that a remedy will be selected for the site in Spring 2003.

Site Repositories



Central Islip Public Library, 33 Hawthorne Street, Central Islip, NY 11722

NYSDEC Region 1 Office, State University of New York, Campus Building 40, Stony Brook, NY 11794

EPA Region II Superfund Records Center, 290 Broadway, 18th Floor, New York, NY 10007-1866